

- E1
cont
5. A method according to claim 4 wherein X^a is F/γ -X or $P-F/\gamma$ -X.
6. A method according to claim 4 wherein X_{2-4} is selected from any one of: S-X, E-X, K-X, T-X, P-X and R-X.
7. A method according to claim 4 wherein X^b is T or I.
8. A method according to claim 4 wherein X_{2-3} is G-K-A, G-K-C, G-K-S, G-K-G, M-R-N or M-R.
9. A method according to any one of claim 4 wherein the linker is T-G-E-K or T-G-E-K-P.
10. A method according to claim 4 wherein position +9 is R or K.
11. A method according to claim 4 wherein positions +1, +5 and +8 are not occupied by any one of the hydrophobic amino acids, F, W or Y.

Sub E2

13. A method for preparing a nucleic acid binding protein of the Cys2-His2 zinc finger class capable of binding to a target nucleic acid sequence, comprising the steps of:

- a) selecting a model zinc finger domain from the group consisting of naturally occurring zinc fingers and consensus zinc fingers; and
- b) mutating the finger according to the rules set in claim 3.

E3

17. A method according to claim 3 wherein the binding protein comprises two or more zinc finger binding motifs, placed N-terminus to C-terminus.

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E4
19. A method of producing a nucleic acid binding protein, the method comprising the steps of:

- a) preparing a nucleic acid coding sequence encoding two or more zinc finger binding motifs as defined in claim 5, placed N-terminus to C-terminus;
- b) inserting the nucleic acid sequence into a suitable expression vector; and
- c) expressing the nucleic acid sequence in a host organism in order to obtain the nucleic acid binding protein.

20. A method according to claim 3 comprising the additional steps of subjecting the nucleic acid binding protein to one or more rounds of randomisation and selection in order to improve the characteristics thereof.

E5
23. A method according to claim 20 wherein the nucleic acid binding protein is selectively randomised at any one of positions + 1, + 5, + 8, -1, + 2, + 3 or + 6.

25. A method for determining the presence of a target nucleic acid molecule, comprising the steps of:

- E4
- a) preparing a nucleic acid binding protein by the method of claim 3 which is specific for the target nucleic acid molecule;
 - b) exposing a test system comprising the target nucleic acid molecule to the nucleic acid binding protein under conditions which promote binding, and removing any nucleic acid binding protein which remains unbound;
 - c) detecting the presence of the nucleic acid binding protein in the test system.

E7
27. A method according to claim 25 wherein the nucleic acid binding protein, in use, is displayed on the surface of a filamentous bacteriophage and the